PAT-NO:

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DOCUMENT-IDENTIFIER:

JP 11302119 A

TITLE:

PRODUCTION OF ANTIMICROBIAL SILVER COLLOID

PUBN-DATE:

November 2, 1999

INVENTOR - INFORMATION:

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APPL-NO: JP10115148

APPL-DATE: April 24, 1998

INT-CL (IPC): A01N059/16, A01N025/04, A01N025/12, A01N025/22

## ABSTRACT:

PROBLEM TO BE SOLVED: To disperse fine silver particles having an average

particle diameter within a prescribed range and produce a colorless and

transparent antimicrobial silver colloid useful for a coating material, a

molding material, a catalyst, etc., by mixing the silver fine particles having

a prescribed particle diameter with a resin and a peroxide in a dispersing

medium such as water.

SOLUTION: This antimicrobial silver colloid is obtained by mixing silver

fine particles having 8-200~nm particle diameter with a resin such as a

methacrylic resin and a peroxide such as methyl ethyl ketone peroxide in a

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dispersing medium such as water or a nonaqueous solution. The particle

diameter of the dispersed silver fine particles in the colloid is  $0.5-5 \ \mathrm{nm}$ .

The concentration of the silver fine particles contained in the colloid is preferably 10 ppm to 1 wt.%.

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TITLE: Manufacture of anti-microbial silver colloid

for coating

material, moulding material and catalyst -

involves

mixing silver microparticles of specific mean

particle

diameter, resin and peroxide in aqueous or non-

aqueous

dispersion medium

PRIORITY-DATA: 1998JP-0115148 (April 24, 1998)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE

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ABSTRACTED-PUB-NO: JP 11302119A

BASIC-ABSTRACT:

NOVELTY - Silver microparticles having a mean particle diameter of 8-200 nm,

resin and peroxide are mixed in a dispersion medium of water or non-aqueous

solution. The obtained silver colloid contains distributed silver microparticles having mean particle diameter of 0.5-5 nm.

USE - For coating material, molding material and catalyst and also used in

internal equipment of infirmary and foodstuff factory.

ADVANTAGE - The obtained colloid is colourless and transparent. The ground

colour of the coated object is maintained. The external appearance of the

coating material is good.

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Patent Family Serial Number - PFPN (1): 11302119